Australian National University

Laser laboratory Audit Checklist

Budget Unit: _____ **Research Group:** _____ **Laboratory #:** _____

Principal Supervisor: _____ **Laser Safety Officer:** _____

HOW TO USE THESE CHECKLIST

1. Complete checklist by placing a tick in the appropriate box next to each checklist item (**C**=**C**ompliant, **NC**=**N**ot **C**ompliant, **NA**=**N**ot **A**pplicable).
2. Forward a copy of completed checklist to the Laser Safety Officer.
3. Forward a copy of completed checklist to Safety and Wellbeing.

Laser Classification:

Classification	Number present	Wavelength(s)
Class 1	_____	*Not required*
Class 2	_____	*Not required*
Class 3A	_____	_____
Class 3B	_____	_____
Class 4	_____	_____

The following recommendations apply mainly to class 3 and class 4 laser laboratories.

Is the laboratory a

- ☐ *Single laser facility*,

- ☐ *Multi-user*, and/or
- ☐ With *multiple lasers.*

Comment: _____

Laboratory Construction

Checklist 1: Laboratory System Controls

Item	C	NC	NA	Comment
Doors have interlocks or alarms to control unauthorised access.				
The room is well illuminated to reduce pupil size.				
The room has light-coloured and diffused wall surfaces.				
Nearby equipment has matte or low reflective surfaces.				

Checklist 2: Engineering Controls

Item	C	NC	NA	Comment
Audible or visible "**ON**" indicator is located either inside or outside of room for class 3B or 4 Lasers.				
The room has a good ventilation system, either through general dilution or local exhaust system, for class 3A, 3B or 4 lasers.				
The beam is terminated at end of its useful path for class 2, 3 or 4 lasers.				
Unintentional specular reflections are minimised/removed for class 3B or 4 lasers.				

Checklist 3: Administrative controls

Item	C	NC	NA	Comment
Warning signs are posted at laboratory entrances for class 3B or 4 Lasers.				
Control of unauthorised access is under ANU Control of Access to Restricted Location Procedure to laboratory of class 3B or 4 lasers.				
A key (or similar control mechanism is used to regulate access to and operation of: laser 3B, 4 lasers laboratory 3B, 4 lasers				
Visitor restrictions are as: Applicable / Available / Employed Security √ ☐ ☐ Notices √ ☐ ☐ Instruction / advice ☐ ☐ ☐				

CHECKLIST4: Personnel Training

Item	C	NC	NA	Comment
ANU Laser safety course is completed by all employees working with class 3B and/or 4 lasers.				
Is medical eye examination required by any of the employee working with laser? (Specified in Risk Assessment)				

Note: All employees, students, and visitors must be instructed to avoid looking directly into the laser beam or its reflections.

Checklist 5: Secondary Hazards in laser laboratory

Item	Present	Source	NA	Comment
Is there any electrical hazard?				
Is there radiation hazard such: ☐ X- Rays ☐ Intense visible ☐ Ultraviolet ☐ Infrared ☐ Radio Frequency ☐ Sound or Ultrasound ☐ Other				
Are there any chemical and/or harmful substances such as: ☐ Fumes ☐ Gases ☐ Vapour ☐ Toxic Dyes ☐ Other				
Is there a risk of fire and/or explosion?				
Are there any Mechanical Hazards?				
Are there any cryogenic liquids?				
Others: ☐ Extreme temperatures ☐ Thermal damage				

Checklist 5: Personal Protective Equipment

Item	Required	Present	Suitable	Worn/ used	Comment
Skin Protection: ☐ Against Laser Damage (i.e. flame and heat resistant) ☐ Aprons/lab coats ☐ Other					
Gloves for: ☐ Dyes and chemicals ☐ Cryogenics ☐ Other					
Eye wear: Type: _____OD: _____@: _____ n Type: _____ OD: _____ @: _____ n Type: R___ or D___ L_____@ : _____nm Type: R___ or D___ L_____@ :_____nm					

General comments: _____

_____

Auditor's name: _____ Date: ____ / ____ / ____